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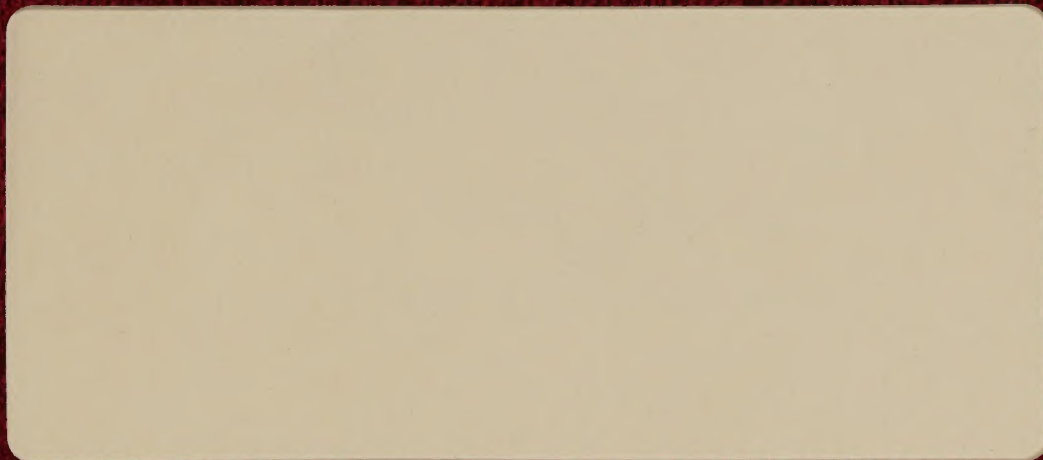
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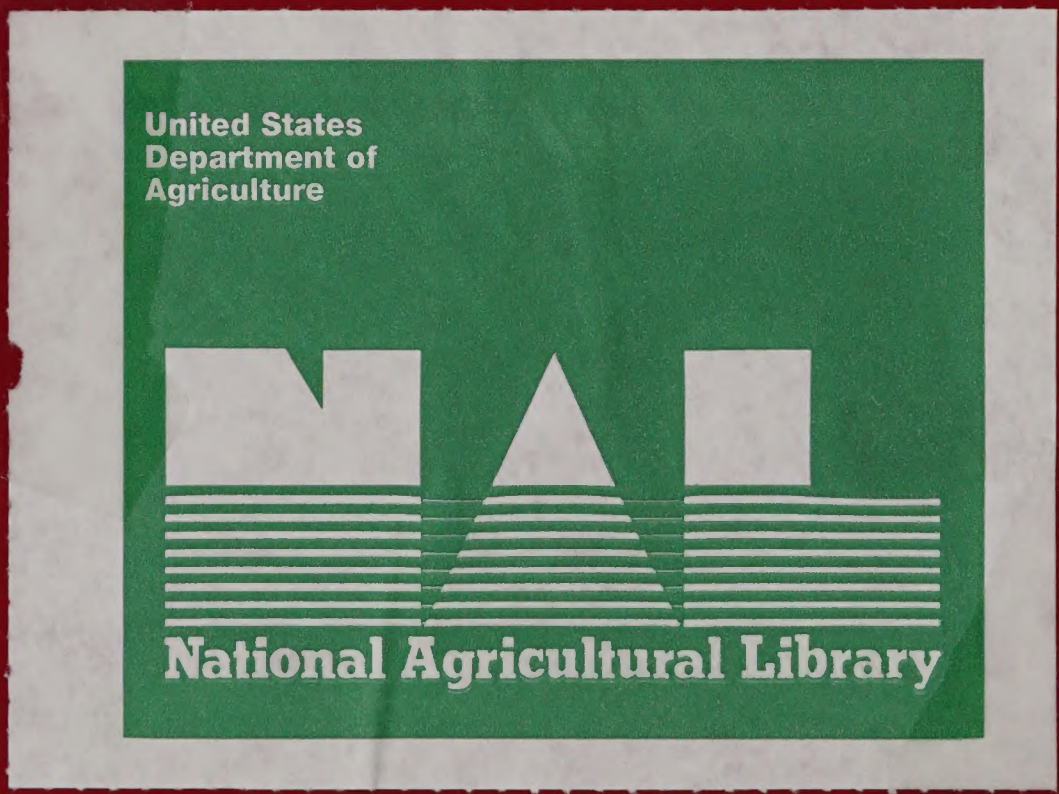
# Staff Report



Agricultural Cooperative Service

United States Department of Agriculture







KEY FACTORS CONTRIBUTING TO THE SUCCESS AND FAILURE OF  
COOPERATIVES SERVING LIMITED RESOURCE FARMERS

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AND FAILURE OF COOPERATIVES SERVING  
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ABSTRACT

This study suggests basic problems contributing to the success or failure of cooperative businesses, organized to serve limited resource farmers in North Carolina. Among them were: number of members, amount of net margins retained, physical volume of business, outside loans, member capital other than retained earnings, and total capitalization. The research concludes that successful cooperatives have well-established organizational structures, and boards of directors are directly involved in major decisions and allow managers little control over management decisions. Further research may provide more definitive answers, but the study suggests factors that have contributed to the success of marketing cooperatives serving small farmers.

Key words: Cooperatives, management, policy, member  
business, low-resource farmers

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## PREFACE

In North Carolina and other States with large numbers of small farms, a substantial number of cooperatives have been organized. Some of these cooperatives are currently active, a few are reportedly experiencing a high degree of success, others are experiencing varying degrees of difficulty, and some have ceased operations. Little detailed information, however, is available on the operations of these smaller cooperatives. If factors can be identified that clearly affect, positively or negatively, the success of cooperative operations, these could help similar cooperatives become more successful. This report is intended to provide some of the information needed to assist these cooperatives achieve more satisfactory performance.

This analysis attempts to identify and evaluate some key factors and conditions contributing to the success or failure of marketing cooperatives serving limited resource farmers, focusing on two specific objectives:

- o To identify key factors, conditions, and/or constraints that have contributed to the success or failure of marketing cooperatives serving limited resource farmers.
- o To evaluate the impact of these key factors, conditions, and/or constraints to determine the degree that they have contributed to satisfactory operations, have hindered operations, or have caused failure of marketing cooperatives, as perceived by cooperative management and board members.

This study was conducted through a cooperative agreement between North Carolina A&T State University and Agricultural Cooperative Service, USDA.



## Methodology

A cooperative is considered successful if it succeeds in a business or economic sense (i.e., meets all operating expenses) and maintains or improves its cooperative character (i.e., continues to operate as a cooperative and, increases membership, and/or membership participation, etc.) To evaluate the factors that contribute to the success or failure of a cooperative, a questionnaire was designed to evaluate two major areas of cooperative organization and operation. The first area focused on the cooperative as a whole, with information on sales, production capacity of members, cooperative trends, industry trends, marketing and service policies. The second area evaluated internal operations of the cooperative; management practices, policies, human and other resources, and performance.

Beginning with a directory of North Carolina Cooperatives, supplemented by information from the USDA's Agricultural Cooperatives Service and the North Carolina Department of Agriculture, a list was developed of marketing cooperatives in the State known or believed to service limited resource farmers.

Once this list was compiled, a random sample was taken and efforts begun to locate managers and directors from each cooperative. Fifteen cooperatives were contacted and interviewed; 23 percent of the 64 identified cooperatives, including operating and non-operating ones. The data were collected through personal interview of the manager and a director of each cooperative. Information was obtained for the 1985 operating year if the cooperative was currently in operation, or the last year of operation for defunct ones.

All of the cooperatives for which interviews were completed were in operation in 1985, although one or two were in the process of reorganizing at the time of the interview. These were included in the analysis as 'operating' cooperatives, falling into the 'unsuccessful' group.



## Analytical Framework

Although this study is largely descriptive, certain nonparametric statistical techniques were used to clarify or confirm associations or differences. The cooperatives were divided into two groups: those generally considered 'successful', or 'unsuccessful' (experiencing difficulties). (The latter group included cooperatives that had ceased operating.) Cooperatives that could not be clearly placed in either group were considered to be 'stable', a third group.

The Chi-square test measures the statistical significance of associations, but requires a fairly large number of observations for useful results. The Cramer's V test determines the strength of a given relationship, especially with smaller numbers of observations. A C-V value of 100 represents a perfect association between two variables. A value of 0 means there is no association. A C-V value above 0.40 indicates a significant degree of association. The Gamma is used to test indicates the nature (direction) and magnitude of the relationship between two variables,--positive or negative.

By using the Chi-square, Cramer's V, and Gamma measures, the variables that show a reasonable degree of association with the results of the cooperative's operations can be identified for analysis and/or further investigation, while those that did not show any association can be eliminated. The end result is a list of factors that help describe the conditions contributing to the success or failure of marketing cooperatives serving small farmers, which should provide some important insight into the conditions affecting small marketing cooperatives and their operations. The results are presented as tentative indications, applicable primarily to the group of cooperatives surveyed and subject to confirmation by further, more exhaustive studies for broader application.



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## HIGHLIGHTS AND CONCLUSIONS

Many factors contribute to the success or failure of a cooperative business, including organization, location, financing, management, marketing plan, and scope of vision or purpose of the members and management. The information obtained from the analysis in this study suggests several key areas that contribute to the success of marketing cooperatives.

An upward trend in the number of members and the amount of net margins retained in the business were both strongly associated with the success of a cooperative. Physical volume of business, outside loans, member capital other than retained earnings, and total capitalization of the cooperative also contributed moderately to successful operation.

Industry trends did not appear to be a strong factor in determining the operating success of individual cooperatives.

Marketing and service policies that appeared to contribute significantly to the success of a cooperative were:

- o Providing fertilizer and other primary production inputs to members;
- o Requiring a minimum standard of quality for products delivered by members;
- o Negotiation of contracts between members and buyers; and
- o Providing members information on production.

Guaranteeing the quality of products sold to buyers, and providing individual members with assistance with production and farm problems appeared to be negatively associated with success.

Management and organization factors that appeared to be positively associated with successful cooperatives were:

- o Having clearly stated, understandable objectives for operations;
- o Having written, complete operational policies;
- o Having clearly-established functions of the board of directors and members; and
- o Forward planning for personnel requirements.

The apparent strong negative impact of annual review of operational policies may reflect an over-emphasis on introspection of past operational faults, resulting in neglect of dealing positively with current operational affairs and problems.

Also, the indicated negative association of proper assignment of qualified employees and having clearly established duties of employees suggest that cooperative management may be confused about objectives and criteria regarding these factors.

Prompt payment of patronage dividends (within 1 year after the year of operations) appeared to strongly influence the success of a cooperative. However, requiring members to sign production or marketing contracts, and make a substantial financial commitment to the cooperative appeared to have a negative impact on successful operation.



Successful cooperatives have well-established organizational structures. The board appears to be directly involved in major decisions concerning operations, hiring and firing of employees, and investments. Results showed more successful cooperatives allowed their manager little control over management decisions other than routine day-to-day operating decisions. This may reflect the fact that small cooperatives management is a part-time occupation, with corresponding low pay, and a low degree of personal commitment. Unfortunately, the persons these cooperatives can attract as managers have limited professional preparation.

Additional information is needed for more definitive answers, but this study indicates important factors that have contributed to the success of marketing cooperatives serving small farmers.



# KEY FACTORS CONTRIBUTING TO THE SUCCESS AND FAILURE OF COOPERATIVES SERVING LIMITED RESOURCE FARMERS

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## Characteristics of Cooperatives

Information obtained from interviews provides a general description of marketing cooperatives serving limited resource producers. Generally, the small cooperatives, like the farmers they serve, have limited resources. Their principal objective was to provide their members with product marketing services, included grading and storage, and production information.

Fruits, vegetables and field crops were the major commodities produced and marketed. Membership in each cooperative average 54.3, and ranged from 7 to 150. Annual gross sales volume ranged from \$700 to \$3.9 millions, averaging \$708,541 for members and nonmembers. The large dispersion of gross sales can be attributed to differences in the types of activities and commodities handled by the cooperatives surveyed, which included marketing of fruits and vegetables, fruit processing, livestock marketing, fisheries, and crafts.

Eighty six percent of the cooperatives surveyed were incorporated. More than two-thirds of these were organized on a stock basis. Members received stock certificates as evidence of their ownership interest in the cooperative. The remaining 31 percent of the incorporated cooperatives were organized on a nonstock basis, where certificates were issued to give evidence of membership and/or capital contributions.

## Successful vs Unsuccessful Cooperatives

Cooperatives, as defined by Knapp (1962), are business organizations formed and democratically controlled by the members to perform at cost for themselves: marketing, purchasing, or other needed services. Cooperative businesses are like other corporate business organizations in physical appearance, functions, or services performed, and operate according to generally-accepted sound business practices. Capacity to produce margins (profits) is the accepted criterion for evaluating the success or efficiency of any business operation including cooperatives. The importance of the profit motive is its effectiveness, both in explaining the degree a successful operation, and predicating business behavior. Thus, for the purpose of explaining cooperative behavior, profit maximization was used as a criterion to classify those surveyed as "successful" or "unsuccessful". Cooperatives were considered "successful" if net operating margins (profits) increased over the most recent 3 years, and "unsuccessful" if net operating margins decreased in this period. Cooperatives were considered "stable" if margins neither increased nor decreased during the 3-year period.

Once classified, The Chi square, Cramer's V, and Gamma tests were used to determine if the success or failure was independent of other factors important to the operation and management of a cooperative and to evaluate the strength and nature of the relationship.



## COOPERATIVE AND INDUSTRY TRENDS

Do past trends of a cooperative or the industry of which the cooperative is a part effect the success or failure of an operation? The respondent cooperative managers were asked whether the cooperative's trend for specific factors over the past 3 years had shown:

- o substantial increase,
- o slight increase,
- o no change (stable),
- o slight decrease, or
- o substantial decrease.

For analysis, these five groups or responses were then collapsed into three groups--increase, stable, and decrease,--to improve the statistical reliability of the results.

An upward trend in the number of members and the amount of retained earnings (closely related to margins), were the strongest factors contributing to a successful cooperative (Table 1). There was also a relatively high positive association between successful operation and the physical volume of business, outside loans, member capital other than retained earnings, and total capitalization of the cooperative.



Table 1--Cooperative trends

Item and trend	Cooperatives responses		Test values		
	Successful	Un-successful	Chi Square	Cramer's V	Gamma
Retained Earnings					
Increase	1	0			
Stable	2	0	10.000	0.700	0.840
Decrease	0	5	**		
Number of Members					
Increase	3	0			
Stable	3	3	8.142	0.520	0.765
Decrease	0	3	*		
Volume of Business					
Increase	4	2			
Stable	1	1	6.860	0.514	0.568
Decrease	0	3			
Outside Loans					
Increase	2	1			
Stable	0	2	4.840	0.492	0.524
Decrease	1	2			
Membership Capital					
Increase	1	1			
Stable	2	1	4.250	0.433	0.231
Decrease	1	2			
Total Capitalization					
Increase	3	2			
Stable	1	0	4.271	0.405	0.371
Decrease	1	3			
Sales Volume					
Increase	4	2			
Stable	1	1	4.080	0.382	0.628
Decrease	0	3			
Other Member Capital					
Increase	1	2			
Stable	1	1	0.194	0.166	0.250
Decrease	1	1			

\*\* Significant at .05 level of confidence.

\* Significant at .10 level of confidence.



Trends of the industry in the Southeast where cooperatives operated do not appear significant in determining their success or failure. The analysis did not reveal any significant association of any of the industry trend factors considered (consumption per capita, business sales volume, profit margin of producers, or profit margin of marketing firms) with the success of an individual cooperative (appendix table 1). However, there appeared to be a moderate level of negative association between successful operation and an increase in the total volume of business handled or consumed in the industry. This could be attributed to the tendency, that as total consumption of product increases, the larger firms in the industry tend to expand, and by aggressive marketing maintain or increase their share of the market, squeezing out smaller, less aggressive firms, like small cooperatives.

#### COOPERATIVE ORGANIZATION AND MANAGEMENT POLICIES

Of the factors dealing with the organizational structure of the cooperative as perceived by the manager, moderately successful ones had these traits:

- o Cooperative objectives were clearly stated;
- o Policies covering operational decisions were complete and pertinent;
- o Written policies covered recurring operating decisions;
- o Clear distinction between the role of members and the board of directors (table 2)

A clear organization plan also was positively, but marginally, associated with success.

Annual review of operating policies showed a strong negative response. This may reflect a human tendency to emphasize looking at past operational faults with a concurrent neglect of dealing positively with current operating affairs and problems.

Two additional factors, the proper assignment of qualified personnel within the organization and clearly established duties of employees, appeared to be negatively associated with successful operation. This result suggests that there may be some confusion by both the manager and directors about criteria and practical objectives for these factors.



Table 2--Cooperative organization (Part I)

Organization factor	Number of responses	Degrees of freedom	Test values		
			Chi Square	Cramer's V	Gamma
Operational Policies Reviewed Every Year	14	2	4.608 *	.574	-0.784
Extent That Objectives Clear & Understandable	15	1	3.461	.480	<u>1/</u>
Extent That Policies Covering Operation Decisions Are Complete	15	2	3.068	.452	0.600
Written Policies Covering Operational Decisions	14	2	2.730	.442	0.556
Functions of Board of Directors Clearly Established	14	2	5.393	.439	0.600
Qualified Persons Properly Assigned	14	4	5.345	.437	-0.500
Duties of Employees Clearly Established	14	4	5.200	.431	-0.700
Functions of Co-op Members Clearly Established 0.590	14	4	4.978	.422	
Personnel Requirements Projected 3 - 5 years 0.444	14	4	4.667	.408	
Functions of Manager Clearly Established -0.300	14	4	4.373	.395	
Clarity of Organization Plan 0.824	15	4	4.545	.389	

Table 2--Cooperative organization (Part II)

Organization factor	Number of responses	Degrees of freedom	Test values		
			Chi Square	Cramer's V	Gamma
Coop Objectives Reviewed Annuallly	12	2	1.600	.365	0.333
Personnel Adequately Paid	14	4	3.540	.356	-0.300
Program to Train Personnel	14	4	3.438	.350	-0.489
Duties of Board Officers Clearly Established	14	4	3.286	.342	<u>1/</u>
Duties of Manager Clearly Established	15	4	3.251	.341	-0.349
Organizational Plan on File	14	2	1.587	.337	-0.077
Duties of Board Members Clearly Established	14	2	2.618	.306	0.353
By-Laws Reviewed Every Year	14	2	0.770	.234	-0.407
Functions of Hired Members Clearly Established	14	4	1.482	.230	-0.059
Co-op Objectives Stated in By-Laws	14	2	0.661	.217	-0.067

o Significant at .10 level of significance.

1/ Gamma could not be computed due to distribution of data in cells.



## Marketing and Service Policies

The marketing and service policies used by the cooperative may contribute to successful cooperative operations. The most important ones were:

- (1) providing fertilizer and other production inputs to members,
- (2) the requiring a minimum standard of quality for product delivered by members,
- (3) negotiating contracts by the cooperative between members and buyers, and
- (4) supplying members information on production. (appendix table 2)

Guaranteed product quality to buyers and assisting producer-members on individual farm problems, however, appeared to have a negative impact on the cooperative's success. Both factors require costly expertise, facilities, and stringent management control to be effective. These are usually outside the small cooperative's resources. Furthermore, if attempted but not effective, the cooperative's business will seriously suffer.

## Member Business Relations

Success of a cooperative is also influenced by the conditions of patronage and member commitment. A seemingly insignificant requirement or practice can have a tremendous effect on how members perceive their role and patronize the cooperative.

Study results indicate that the method a cooperative uses to pay patronage refunds contributes significantly to success. Seventy-five percent of the successful cooperatives distributed patronage refunds to members as cash or check within 1 year after the year of operation. Unsuccessful cooperatives used revolving fund certificates or paid no patronage refunds (table 3).

In addition, there appeared to be a moderately high degree of negative association between success and:

- o requiring members to sign production or marketing contracts (table 4); and
- o requiring an average financial commitment from members of more than \$1,000 (table 5).

These results suggest that producers react against a strong commitment, both operational and financial, to a cooperative (or any other outside organization or entity), even though such commitment would appear to be important if not essential for a successful operation.

Table 3--How cooperative patronage dividends are paid to members

Method of payment	Successful Co-ops		Unsuccessful Co-ops	
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	<u>Number</u>	<u>Percent</u>	<u>Number</u>	<u>Percent</u>
Check or Cash 1 Year after Year of Operation	3	75	0	0
Revolving Fund Certificate	0	0	0	0
No Patronage Refund Paid	<u>1</u>	<u>25</u>	<u>6</u>	<u>100</u>
Total	4	100	6	100

Summary Statistics:

Chi Square = 12.037\*\*

Number of Responses = 13

Cramer's V = 0.680

Degrees of Freedom = 4

Gamma = 0.941

\*\* Significant at .05 level of confidence

Table 4--Requirement for members to sign production or marketing contracts

Sign contract	Successful Co-ops		Unsuccessful Co-ops	
	<u>Number</u>	<u>Percent</u>	<u>Number</u>	<u>Percent</u>
Yes	0	0	2	33
No	4	100	4	67
Total	4	100	6	100

Summary Statistics:

Chi Square = 3.611

Number of Responses = 13

Cramer's V = 0.527

Degrees of Freedom = 2

Gamma = 0.285



Table 5--Financial commitment of members to the cooperative

Commitment	Successful Coops		Unsuccessful Coops	
	Number	Percent	Number	Percent
\$1,000 or more	0	0	2	33
Under \$1,000	3	100	4	67
Total	3	100	6	100

Summary Statistics:

Number of Responses = 12	Chi Square = 5.600
Degrees of Freedom = 6	Cramer's V = 0.483
	Gamma = 0.273

MANAGEMENT PRACTICES AND PERFORMANCE

The practice of management in implementing policies is one of the key factors in the operation of any business including a cooperative. It is commonly believed that the success of any business primarily rests on its manager's effectiveness in organization and use of its resources. A number of the policies and activities involved in the management of a cooperative were examined for their possible influence. Responses from both managers and board members were obtained.

Implementation of Policies and Procedures

To evaluate the decisionmaking process used in determining and implementing policies and procedures in the cooperative business, each respondent was asked to indicate if:

- o manager alone decides and advises board;
- o manager prepares decision, and board usually approves;
- o manager develops decision in conference with board;
- o board prepares decision and directs manager to implement; and
- o membership approval required for decisions.

In this analysis, the Cramers's V and the sign of the Gamma statistics indicates how decisions are made within the cooperative. A relatively high degree of association between the decisionmaker and the policies and procedures mentioned is indicated by a Cramer's V greater than 0.40, while the sign of the Gamma indicates who makes the decision.

A negative Gamma value indicates the decision is made by the board. A positive Gamma value indicates the decision is made by the manager. (Appendix table 3)

Results indicate most major decisions involving cooperative policy and major investments are made by the board including: advertising and promotion activities, investments in physical facilities, borrowing money for capitalization, membership fee charges, office operational procedures, services offered or performed for members, hiring and firing of employees, and membership policies. Decisions to borrow money for operating capital appeared to be the only decision left to the manager.

#### Manager-Personnel Relations

The manager has primary responsibility for day-to-day operating decisions and to make best use of personnel. The manager's responsibilities involve leading, supervising, motivating, delegating, and evaluating employees. Information on the performance of the manager as he/she interacts with employees and directors was obtained from both the manager and from a director for each cooperative.

The choice of responses for each question were:

- o 'Excellent'--no improvement needed.
- o 'Good'--some improvement needed.
- o 'Fair'--improvement needed.
- o 'Poor'--much improvement needed.
- o 'Lacking'--absent, or none.

Responses were collapsed into three groups for analysis: 'excellent' and 'good' were considered 'good', and 'poor' and 'lacking' were considered 'poor'.

Results were unexpected in that they indicated a negative relationship exists between the successful operation of a cooperative and nearly all of the management practices considered. All but one of the variables show a high level of inverse association for both manager and board member responses.

Comparing responses of directors with managers indicated general agreement about relationships for nearly all of the management practices considered (appendix tables 4 and 5).

Variables which did not show a strong negative association, according to manager responses were:

- o completeness of information provided to the Board;
- o delegation of responsibility to subordinates;
- o evaluation of employee performance;
- o training provided for self improvement of management and employees; and
- o interest of directors, in balance, supporting the cooperative.

Among director responses, those variables not showing a significant association with successful operation were: interest of board members in support of cooperative; and working conditions favorable for effective job performance.



The interest of board members in support of the cooperative rather than special individual and local interest, was the only variable that showed no association for both managers and director responses.

The relative importance of the association of the factors indicted a notable difference in perception between manager and director responses for about half of the 17 variables considered as shown in following tabulation.

Table 6--Comparison of ranking of management-personnel relation factors by managers and directors.

Variable	Ranking by	
	Manager:	Director
	:	
Information on standards of performance	2	14
Freedom of manager to make recommendations	5	10
Delegation of authority to manage	7	12
Working conditions favorable for effective job performance	9	17
Freedom of communication between manager and employees	10	1
Completeness of information manager provides to board	13	8
Delegation of responsibility to subordinates	14	4
Evaluation of employees' performance	15	6

The apparently conflicting perceptions of the relative importance of the factors between managers and board members, and the unexpected negative association of generally accepted recommended management practices with successful operations are consistent, however, with the results previously discussed. Little authority is given to managers of these cooperatives for independent decisionmaking. Although this can not be stated conclusively on the basis of this study, it is consistent with other reported findings that managers of small cooperatives generally have limited business management training/experience, and of directors predominantly making management decisions.

## Management Control

Control in management describes an information system that monitors plans and processes to be sure that they are working toward meeting predetermined goals, and sounds a warning when necessary so that remedial action can be taken. <sup>1/</sup> This section examines the extent to which management monitors or evaluates operations and takes necessary remedial action to prevent unwanted results or to improve the operation of the cooperative. For each question, directors were asked to rate their cooperative as:

- o excellent, no improvement needed;
- o good, some improvement needed;
- o fair, improvement needed;
- o poor, much improvement needed; or
- o lacking, absent or none.

No variables met the commonly-used Chi-square test for statistical significance at the 0.10 level, but the Cramer's V test indicated a high level of association between most of the management control variables and successful operation of the cooperative (appendix Table 6). The following variables all appeared to have a positive effect on the success of the cooperative operation:

- o periodic review of methods of operation by the manager and the board;
- o use of feasibility studies for major capital investment;
- o preparation and use of an annual operating budget;
- o preparation of long-range (3 years or more) operating plans and objectives;
- o employment of bookkeeper or accountant;
- o use of research studies for planning or evaluating performance; and
- o review of operating by manager.

On the other hand, several variables appeared to have a negative effect on the cooperative's success:

- o preparation of analyses of past operations;
- o preparation of a short-range (1-3 years) operating plan and objectives; and
- o projections of potential future business volume or service requirements.

## Management Performance

This section looks at the performance of managers as they make decisions in the day-to-day operations of the cooperative's business, from a director's perspective.

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<sup>1/</sup> Downey, W. David, and John K. Trocke, "Managing the Agribusiness", Agribusiness Management. p. 37.



The results of the analysis for these performance variables show that the 'quality' of the manager's decisionmaking, especially in routine operations, positively effected the cooperative's success (appendix table 7). However, the results suggest that the relative quality of the manager's long-range planning and his effectiveness in member relations, policies, and activities negatively effected the cooperative's success.

The strength of a manager's decisionmaking practices did not appear to have any effect on the success of the cooperative's operations.

The responses for a question intended to determine whether the manager's 'wrong' decisions resulted in major or only minor cost/losses (i.e., whether their 'wrong' decisions tended to be big ones), indicated that the severity of 'wrong' decisions does not have any measurable effect on operational success.

In summary, the primary contribution of the manager of cooperatives serving limited resource farmers appeared to be in their ability to conduct and/or facilitate effective performance of the routine, day-to-day operations of business activities, rather than exerting a strong leadership profile.

One cooperative being reorganized because of large financial losses from a series of 'wrong' decisions by the past manager appears to support the apparent common wisdom of these cooperatives in reserving policy decisions for the board. Because of the limited number of interviews of cooperatives that had failed, the analysis could give no statistical confirmation of this response.





## APPENDIX TABLES





Appendix table 1--Industry trends

Appendix Table 1 Industry Trends						
Item and trend	Number of responses	Degrees of freedom	Test values			
			Chi Square	Cramer's V	Gamma	
Total Consumption						
Increase Stable Decrease	15	4	4.938	.405	-0.378	
Producer Profits						
Increase Stable Decrease	15	4	4.687	.395	0.545	
Business Volume						
Increase Stable Decrease	15	4	3.833	.357	0.579	
Marketing Firm Profits						
Increase Stable Decrease	13	4	2.347	.300	0.167	
Consumption per Capita						
Increase Stable Decrease	14	2	0.062	.066	0.103	

Appendix table 2--Cooperative marketing and service policies

Cooperative policies	Number of responses	Degrees of freedom	Test values		
			Chi Square	Cramer's V	Gamma
Provide Production Inputs for Members	14	2	7.467 *	.730	<u>1/</u>
Require Minimum Standard Quality of Product Delivered	14	2	6.873 **	.701	<u>1/</u>
Negotiate Between Members and Buyers	15	2	5.625 *	.612	<u>1/</u>
Guarantee Quality of Product Sold	14	2	4.853 *	.589	-0.875
Provide Members Information on Production	15	2	3.920	.511	0.819
Assist/Advise Members on Farm Problems	14	2	2.975	.461	-0.600
Specifies Production Practices for Members	14	2	1.078	.278	-0.467
Collects Payments from Buyers & Distributes to Members	15	2	.933	.258	-0.512
Supplies Information on Prices and Markets to Members	14	2	.770	.235	-0.407
Purchase from Members/Sell to Buyers	15	2	.511	.185	-0.310
Signs Quantity Contracts with Buyers	15	2	.417	.167	0.000

\*\* Significant at .05 level of confidence

\* Significant at .10 level of confidence

1/ Due to distribution of data in cells, Gamma could not be computed.



Appendix table 3--Implementation of policies and procedures

Policy	Number of responses	Degrees of freedom	Test values		
			Chi Square	Cramer's V	Gamma
Advertising and Promotion Activities	11	8	10.542	.692	-0.400
Major Investments in Physical Facilities	11	8	6.844	.558	-0.481
Membership Fees and Charges	10	6	5.556	.527	-0.124
Borrow Money for Operating Capital	9	6	5.200	.537	0.111
Services offered to Members	9	8	4.800	.516	-0.176
Borrow Money for Capitalization	8	6	4.133	.508	-0.077
Office Operational Procedures	10	4	4.024	.448	-0.375
Membership Policies	11	6	3.361	.391	-0.391
Hiring or Firing of Employees	10	4	3.357	.410	-0.500
Office Organization	10	4	1.500	.274	-0.176

Appendix table 4--Manager-personel relations: manager respondent (Part I)

Performance variable	Number of responses	Degrees of freedom	Test values		
			Chi Square	Cramer's V	Gamma
Clarity/completeness of Work Assignments	11	4	9.044 *	.641	-0.571
Information on Performance Standards	11	4	9.044 *	.641	-0.571
Acceptability of Employee Performance Standards	11	4	5.671	.508	-0.429
Manager's Presentation for Board Consideration	12	4	5.200	.465	-0.250
Freedom of Manager to Make Recommendations	12	4	5.100	.461	-0.440
Objectively of Evaluations	11	4	4.522	.453	-0.143
Board Delegation of Authority to Manager	12	2	2.400	.447	-0.474
Board Support of Manager Decisions	12	2	2.400	.447	-0.474
Working Conditions For Effective Job Performance	12	4	4.486	.432	-0.111
Freedom of Communication Between Manager and Subordinates	11	4	3.911	.422	-0.360
Freedom of Communication Across Organization Lines	12	4	3.900	.403	-0.167
Work Assignments Considered Fair	11	2	1.781	.402	-0.600

Appendix table 4--Manager-personnel relations: manager respondent (part II)

Performance variable	Number of responses	Degrees of freedom	Test values		
			Chi Square	Cramer's V	Gamma
Completeness of Information to Board	12	4	3.387	.376	-0.143
Delegation of Responsibility	11	4	2.493	.336	-0.462
Evaluation of Employee Performance	11	4	1.760	.282	-0.077
Training for Management and Employees	12	4	1.540	.253	-0.133
Balance of Board Members Interest as a whole in Support of Cooperative	12	2	0.206	.131	-0.130

\* Significant at .10 level of confidence.



Appendix table 5--Manager-personnel relations: board member respondent (Part I)

Performance variable	Number of responses	Degrees of freedom	Test values		
			Chi Square	Cramer's V	Gamma
Freedom of Communication Between Manager and Subordinates	11	2	4.950 *	.671	- <u>1</u> /
Manager's Presentation for Board Consideration	11	4	9.429 *	.655	-0.833
Objectivity of Evaluations	11	4	9.429 *	.654	-0.833
Delegation of Responsibility	11	2	3.654	.576	-0.810
Clarity/Completeness of Work Assignments	11	2	3.653	.576	-0.810
Evaluation of Employee Performance	11	4	6.286	.534	-0.636
Acceptability of Standards of Employee Performance	11	4	6.233	.532	-0.615
Completeness of Information to Board	11	4	5.579	.504	-0.825
Board Support of Manager's Decisions	11	2	2.933	.516	<u>1</u> /
Freedom of Manager to Make Recommendations	11	4	4.933	.470	<u>1</u> /
Freedom of Communication Across Organization Lines	11	4	4.950	.474	<u>1</u> /
Board Delegation of Authority to Manager	10	2	2.000	.447	-0.667
Training Provided for Manager & Employees	11	4	4.354	.445	-0.304

Appendix table 5 --Manager-personnel relations: board member  
respondent (Part II)

Performance variable	Number of responses	Degrees of freedom	Test values		
			Chi Square	Cramer's V	Gamma
Information on Standards of Performance	11	4	4.107	.432	-0.556
Work Assignments Considered Fair	11	4	3.811	.416	-0.619
Balance of Board Members' Interest as a whole in Support of Cooperative	11	4	3.135	.377	0.120
Working Conditions for Effective Job Performance	11	4	2.292	.323	-0.217

\*\* Significant at .05 level of confidence.

\* Significant at .10 level of confidence.

1/ Gamma could not be computed due to distribution of data in cells

Appendix table 6--Management control variables

Evaluation variable	Number of responses	Degrees of freedom	Test Chi Square	Test values	
				Cramer's V	Gamma
Review of Methods of Operation by Board	10	4	7.500	.612	0.427
Preparation of Analyses of Operation	9	4	6.062	.580	-0.053
Use of Feasibility Studies for Major Investments	9	4	5.688	.562	<u>1/</u>
Preparation of Short-Range Plans (1 - 3 Years)	9	4	5.125	.534	-0.474
Preparation and use of Annual Operating Budget	10	4	5.667	.532	0.091
Analyses/Projection of Future Business Volume	9	2	2.250	.500	-0.143
Preparation of Long-Range Plans (3+ Years)	9	4	3.125	.417	0.285
Employ Bookkeeper or Accountant to keep Books	10	2	1.667	.408	0.429
Use of Research Studies for Planning	9	4	2.875	.400	<u>1/</u>
Review of Methods of Operation by Manager	10	4	3.167	.398	0.238
Preparation of Timely Financial Reports	9	4	2.373	.363	0.231
Annual External Audit	9	4	2.062	.338	-0.375
Management Decisions Consistent with Policies	10	2	0.625	.250	<u>1/</u>

1/ Gamma could not be computed due to distribution of data in cells.



Appendix table 7--Evaluation of manager performance

Evaluation variable	Number of responses	Degrees of freedom	Test Chi Square	Test values	
				Cramer's V	Gamma
Relative Quality of Routine Operations	10	6	8.844	.665	0.440
Relative Value of 'Right' Decisions	9	6	5.490	.552	0.625
Relative Quality of Long-Range Planning	10	6	4.889	.494	-0.083
Effectiveness of Member Relations, Policies & Activities	10	6	4.889	.494	-0.263
Relative Quality of Manager's Decisions	9	2	2.057	.478	<u>1/</u>
Relative Strength of Manager's Decision-making	9	2	1.350	.387	-0.091
Cost, or Value of 'Wrong' Decisions	9	4	2.400	.365	-0.167

1/ Gamma could not be computed due to distribution of data in cells.





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